Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

# Title V Construction Permit

Permit No.: C-0042-22-0011-V Plant ID: 0042
Effective Date: 06/14/2022 Expiration Date: 06/30/2023

Source: Clariant Corporation (Louisville South Plant)
4900 Crittenden Drive
Louisville, KY 40209

Owner: Clariant Corporation
500 E. Morehead Street
Charlotte, NC 28202

is authorized to install the described process equipment by the Louisville Metro Air Pollution Control District. Authorization is based on information provided with the application submitted by the company and in accordance with applicable regulations and the conditions specified herein.

Process equipment description:

Changes and/or modifications to Emission Units S02, S03, S13, S14, S17, S22, S29, S34, S35, and S38 of Clariant South Plant to correct reported permit deviations.

Public Notice Date: 05/13/2022

Permit writer: Karen Thorne

DocuSigned by:
BDAE2992DEB24D7...
Air Pollution Control Officer
6/14/2022

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## Construction Permit Revisions and Changes

| Permit No. | Public Notice | Issue Date | Change Type | Description/Scope |
|---|---|---|---|---|
| C-0042-22-0011-V | 05/14/22 - 06/13/22 | 06/14/2022 | Initial | Entire Permit |

## Application and Related Documents

| Document Number | Date | Description |
|---|---|---|
| 180461 | 12/16/2020 | Clariant South updated STAR demonstration |
| 189606 | 2/12/2021 | Public Modification Construction Application |
| 189607 | 2/12/2021 | Confidential Modification Construction Application |
| 233614 | 7/1/2021 | Stack test and updated STAR EA demonstration |
| 235699 | 7/9/2021 | Updated public PTE |
| 235698 | 7/9/2021 | Updated confidential PTE |
| 245293 | 8/10/2021 | T-101-S17-004 SCREEN3 Summary |
| 271295 | 9/9/2021 | Updated public PTE |
| 271296 | 9/9/2021 | Updated confidential PTE |
| 304034 | 01/26/2021 | Company comments on draft permit |
| 305326 | 01/24/2021 | Public parameter range request |
| 305327 | 01/24/2021 | Confidential parameter range request |

## Abbreviations and Acronyms

AP-42 - AP-42, *Compilation of Air Pollutant Emission Factors, published by U.S.EPA*
APCD - Louisville Metro Air Pollution Control District
BAC - Benchmark Ambient Concentration
BACT - Best Available Control Technology
Btu - British thermal unit
CEMS - Continuous Emission Monitoring System
CFR - Code of Federal Regulations
CO - Carbon monoxide
District - Louisville Metro Air Pollution Control District
EA - Environmental Acceptability
gal - U.S. fluid gallons
GHG - Greenhouse Gas
HAP - Hazardous Air Pollutant
Hg - Mercury
hr - Hour
in. - Inches
lbs - Pounds
l - Liter
LMAPCD - Louisville Metro Air Pollution Control District
mmHg - Millimeters of mercury column height
MM - Million
(M)SDS - (Material) Safety Data Sheet
NAICS - North American Industry Classification System
$NO_x$ - Nitrogen oxides
PM - Particulate Matter
$PM_{10}$ - Particulate Matter less than 10 microns
$PM_{2.5}$ - Particulate Matter less than 2.5 microns
ppm - parts per million
PSD - Prevention of Significant Deterioration
psia - Pounds per square inch absolute
QA - Quality Assurance
RACT - Reasonably Available Control Technology
SIC - Standard Industrial Classification
SIP - State Implementation Plan
$SO_2$ - Sulfur dioxide
STAR - Strategic Toxic Air Reduction
TAC - Toxic Air Contaminant
UTM - Universal Transverse Mercator
VOC - Volatile Organic Compound
w.c. - Water column
year - Any period of twelve consecutive months, unless "calendar year" is specified
yr - Year, or any 12 consecutive-month period, as determined by context

## Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

## General Conditions

G1. The owner or operator of the affected facility covered by this permit shall notify the District of any process change, equipment change, material change, or change in method or hours of operation. This requirement is applicable to those changes (except equipment changes) that may have the potential for increasing the emission of air contaminants to a level in excess of the applicable limits or standards specified in this permit or District regulations.

G2. The owner or operator shall obtain new or revised permits from the District in accordance with District Regulation 2.16 for Title V sources, District Regulation 2.17 for FEDOOP sources or District Regulation 2.03 for other sources including:

a. The company relocates to a different physical address.

b. The ownership of the company is changed.

c. The name of the company as shown on the permit is changed.

d. Permits are nearing expiration or have expired.

G3. The owner or operator shall submit a timely application for changes according to G2. Timely renewal is not always achievable; therefore, the company is hereby authorized to continue operation in compliance with the latest District permit(s) until the District issues the renewed permit(s).

G4. The owner or operator shall not be authorized to transfer ownership or responsibility of the permit. The District may transfer permits after appropriate notification (Form AP- 100A) has been received and review has been made.

G5. The owner or operator shall pay the required permit fees within 45 days after issuance of the SOF by the District, unless other arrangements have been proposed and accepted by the District.

G6. This permit allows operation 8,760 hours per year unless specifically limited elsewhere in this permit.

G7. The owner or operator shall submit emission inventory reports as required by Regulation 1.06.

G8. The owner or operator shall timely report abnormal conditions or operational changes, which may cause excess emissions as required by Regulation 1.07.

G9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.

G10. If a change in the Responsible Official (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of the date the RO change occurs.

G11. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

| Regulation | Title |
|---|---|
| 1.01 | General Application of Regulations and Standards |
| 1.02 | Definitions |
| 1.03 | Abbreviations and Acronyms |
| 1.04 | Performance Tests |
| 1.05 | Compliance With Emissions Standards And Maintenance Requirements |
| 1.06 | Source Self-Monitoring, Emission Inventory Development and Reporting |
| 1.07 | Excess Emissions During Startups, Shutdowns, and Upset Conditions |
| 1.08 | Administrative Procedures |
| 1.09 | Prohibition of Air Pollution |
| 1.10 | Circumvention |
| 1.11 | Control of Open Burning |
| 1.14 | Control of Fugitive Particulate Emissions |
| 1.18 | Rule Effectiveness |
| 1.19 | Administrative Hearings |
| 2.01 | General Application (Permit Requirements) |
| 2.02 | Air Pollution Regulation Requirements and Exemptions |
| 2.03 | Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements |
| 2.04 | Construction or Modification of Major Sources in or Impacting Upon Non-Attainment Areas (Emission Offset Requirements) |
| 2.05 | Prevention of Significant Deterioration |
| 2.06 | Permit Requirements – Other Sources |
| 2.07 | Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits |
| 2.09 | Causes for Permit Modification, Revocation, or Suspension |
| 2.10 | Stack Height Considerations |
| 2.11 | Air Quality Model Usage |
| 3.01 | Ambient Air Quality Standards |
| 4.01 | General Provisions for Emergency Episodes |
| 4.02 | Episode Criteria |
| 4.03 | General Abatement Requirements |
| 4.04 | Particulate and Sulfur Dioxide Reduction Requirements |
| 4.05 | Hydrocarbon and Nitrogen Oxides Reduction Requirements |
| 4.06 | Carbon Monoxide Reduction Requirements |
| 4.07 | Episode Reporting Requirements |
| 6.01 | General Provisions (Existing Affected Facilities) |
| 6.02 | Emission Monitoring for Existing Sources |
| 7.01 | General Provisions (New Affected Facilities) |

District Only Enforceable Regulations:

| Regulation | Title |
|---|---|
| 1.12 | Control of Nuisances |
| 1.13 | Control of Objectionable Odors |
| 2.08 | Emission Fee, Permit Fees and Permit Renewal Procedures |
| 2.16 | Title V Operating Permits |
| 5.00 | Definitions |
| 5.01 | General Provisions |
| 5.02 | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants |
| 5.14 | Hazardous Air Pollutants and Source Categories |
| 5.15 | Chemical Accident Prevention Provisions |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant |
| 5.23 | Categories of Toxic Air Contaminants |
| 7.02 | Adoption and Incorporation by Reference of Federal New Source Performance Standards |

## Plantwide Specific Conditions

### Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 2.05 | Prevention of Signification Deterioration of Air Quality | 1, 2 |
| 2.16 | Title V Operating Permits | 1 through 6 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 40 CFR 63 Subpart VVVVVV | National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources | 63.11495, 63.11501(c)(1), 63.11501(d), and 63.11496(f)(3) |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.02 | Adoption of National Emission Standards for Hazardous Air Pollutants | 1, 3.95 and 4 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

## Plantwide Specific Conditions

**S1. Standards**
[Regulation 2.03, section 6.1]

**a. HAP**

i. The owner or operator shall not allow plantwide single HAP emissions to exceed 10 tons per consecutive 12-month period for each HAP.
[Regulation 2.16, section 4.1.1]

ii. The owner or operator shall not allow plantwide total HAP emissions to exceed 25 tons per consecutive 12-month period.
[Regulation 2.16, section 4.1.1]

iii. Management Practices. The owner or operator shall comply with the following paragraphs. [40 CFR 63 Subpart VVVVVV]

1) Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form). [40 CFR 63.11495(a)(1)]

2) The owner or operator must conduct inspections of process vessels and equipment for each CMPU in metal HAP service and determine that the process vessels and equipment are sound and free of leaks. [40 CFR 63.11495(a)(3)]

3) The owner or operator must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of this paragraph, a leak will be considered "repaired" if a condition specified in one of the following paragraphs is met. [40 CFR 63.11495(a)(4)]

(a) The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or

(b) No bubbles are observed at potential leak sites during a leak check using soap solution, or

(c) The system will hold a test pressure.

4) The owner or operator must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair.
[40 CFR 63.11495(a)(5)]

i. Startup, shutdown, and malfunction (SSM) provisions in subparts that are referenced in 40 CFR 63.11495(a) and (b) do not apply.
[40 CFR 63.11495(c)]

ii. General duty. At all times, the owner or operator must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the CMPU. [40 CFR 63.11495(d)]

iii. Emissions from metal HAP process vents. For all metal HAP process vents from each CMPU with collective uncontrolled metal HAP emissions equal to or greater than 400 lb/yr, the owner or operator shall reduce collective uncontrolled emissions of total metal HAP emissions by ≥95 percent by weight by routing emissions from a sufficient number of the metal process vents through a closed-vent system to any combination of control devices, according to the requirements of §63.11496(f)(3). The requirements of this paragraph §63.11496(f) do not apply to metal HAP process vents from CMPU containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form).
[40 CFR 63.11496(f) and Table 4]

**b. Opacity**

The owner or operator shall not allow or cause visible emissions to equal or exceed twenty percent (20%) opacity. [Regulation 7.08, section 3.1.1 and 4.1/4.2]

**c. $NO_X$, CO, PM/$PM_{10}$/$PM_{2.5}$, and $SO_2$**

The owner or operator shall not allow or cause the plantwide emissions of any air pollutant to equal or exceed 100 tons during any consecutive 12-month period. [Regulation 2.05]

**d. TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis.
[Regulations 5.00 and 5.21] (See Plantwide Comment.)

**S2. Monitoring and Record Keeping**
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. HAP**

i. For each HAP emission point, the owner or operator shall calculate and record the monthly throughput of each HAP-containing raw material and the HAP content. HAP content in both base metal form and compound form shall be kept for HAP compounds.

ii. The owner or operator shall calculate and record the plantwide consecutive 12-month emissions of each single HAP and total HAP for each month in the reporting period.

$$HAP_A = \sum_{1}^{x}[U_x(1 - C_{Conx})] + \sum_{1}^{z} U_z + F$$

Where:

| | | |
|---|---|---|
| $HAP_A$ | = | Total plantwide emissions of an individual HAP (A) |
| $U_x$ | = | Uncontrolled HAP emission from each Emission Point (x) |
| $C_{Conx}$ | = | Control Efficiency of each control device for each Emission Point (x) |
| $U_z$ | = | Uncontrolled HAP emissions from each uncontrolled Emission Point (z) during bypass events |
| F | = | Total plantwide fugitive HAP emissions |

iii. The owner or operator must determine the sum of metal HAP emissions from all metal HAP process vents within a CMPU subject to 40 CFR 63 Subpart VVVVVV, except you are not required to determine the annual emissions if you control the metal HAP process vents within a CMPU in accordance with Table 4 of Subpart VVVVVV or if you determine your total metal HAP usage in the process unit is less than 400 lb/yr. To determine the mass emission rate you may use process knowledge, engineering assessment, or test data. You must keep records of the emissions calculations. [40 CFR 63.11496(f)(1)]

iv. If your current estimate is that total uncontrolled metal HAP emissions from a CMPU subject to this subpart are less than 400 lb/yr, then you must keep records of either the number of batches operated per month (batch vents) or the process operating hours (continuous vents). Also, you must reevaluate your total emissions before you make any process or operational change that affects emissions of metal HAP. If projected emissions increase to 400 lb/yr or more, then you must be in compliance with one of the options for metal HAP process vents in Table 4 of Subpart VVVVVV upon initiating operation under the new operating conditions. You must keep

records of all recalculated emissions determinations.
[40 CFR 63.11496(f)(2)]

**b. NOx, CO, and $SO_2$**

The owner or operator shall calculate and record the plantwide consecutive 12-month emissions of $NO_X$, CO, and $SO_2$ for each month in the reporting period. The calculation shall be performed as follows unless otherwise approved in writing by the District:

$$CO/NOx/SO_2 = \sum_1^x [U_x(1 - C_{Conx})] + \sum_1^z U_z + F$$

Where:

$CO/NOx/SO_2$ = Total plantwide emissions of CO, NOx, or $SO_2$
$U_x$ = Uncontrolled NOx emission from each Emission Point (x)
$C_{Conx}$ = Control Efficiency of each control device for each Emission Point (x)
$U_z$ = Uncontrolled emissions from each uncontrolled Emission Point (z) during bypass events
F = Total plantwide fugitive emissions

**c. Opacity**

i. For each referenced PM emission point, the owner or operator shall conduct a monthly one-minute visible emissions survey during normal process operation and daylight hours of each PM emission point. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is wholly within a building.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation.

iii. The owner or operator shall maintain monthly records of the results of all visible emissions surveys and Methods 9 tests performed. The records shall include the date of each survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

**d. $PM/PM_{10}/PM_{2.5}$**

i. For each PM emission point, the owner or operator shall monitor and maintain records of the throughput of each raw material during each calendar month.

ii. The owner or operator shall calculate and record the plantwide consecutive 12-month $PM_{10}/PM_{2.5}$ emissions for each month in the reporting period.

$$PM/PM_{10}/PM_{2.5} = \sum_{1}^{x}[U_x(1 - C_{Conx})] + \sum_{i}^{z} U_z + F$$

Where:

$PM/PM_{10}/PM_{2.5}$ = Total plantwide emissions of $PM/PM_{10}/PM_{2.5}$
$U_x$ = Uncontrolled PM emission from each Emission Point (x)
$C_{Conx}$ = Control Efficiency of each control device for each Emission Point (x)
$U_z$ = Uncontrolled $PM/PM_{10}/PM_{2.5}$ emissions from each uncontrolled Emission Point (z) during bypass events
F = Total plantwide fugitive $PM/PM_{10}/PM_{2.5}$ emissions

**e. TAC**

The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to (M)SDS, analysis of emissions, and/or modeling results.

## S3. Reporting

[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11.

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1st through June 30th | August 29th |
| July 1st through December 31st | March 1st |

**a. HAP**

i. The owner or operator shall report the consecutive 12-month plantwide emissions of each individual HAP for each month in the reporting period.

ii. The owner or operator shall report the consecutive 12-month plantwide emissions of total HAP for each month in the reporting period.

iii. Semiannual Compliance Reports. The owner or operator must submit semiannual compliance reports that contain the information specified in the following paragraphs, as applicable. Reports are required only for semiannual periods during which you experienced any of the events described in § 63.11501(d)(1) through (8). [40 CFR 63.11501(d)]

(1) Deviations. You must clearly identify any deviation from the requirements of this subpart. [§63.11501(d)(1)]

(2) Delay of leak repair. You must provide the following information for each delay of leak repair beyond 15 days for any process equipment, storage tank, surge control vessel, bottoms receiver, and each delay of leak repair beyond 45 days for any heat exchange system with a cooling water flow rate less than 8,000 gal/min: information on the date the leak was identified, the reason for the delay in repair, and the date the leak was repaired. [§63.11501(d)(3)]

(3) Process change. You must report each process change that affects a compliance determination and submit a new certification of compliance with the applicable requirements in accordance with the procedures specified in §63.11501(b). [§63.11501(d)(4)]

(4) Overlapping rule requirements. Report any changes in the overlapping provisions with which you comply. [§63.11501(d)(6)]

(5) Malfunctions. If a malfunction occurred during the reporting period, the report must include the number of instances of malfunctions that caused emissions in excess of a standard. For each malfunction that caused emissions in excess of a standard, the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. The report must also include a description of actions you took during a malfunction of an affected source to minimize emissions in accordance with §63.11495(d), including actions taken to correct a malfunction. [§63.11501(d)(8)]

**b. Opacity**

i. The date and time of each VE Survey where visible emissions were observed, and the results of the Method 9 test performed;

ii. Identification of all periods of exceeding the opacity standard;

iii. Description of any corrective action taken for each exceedance of an opacity standard specified in this permit; and

iv. Any deviation from the requirement to perform or record the results of the required monthly VE surveys or Method 9 tests.

**c. $PM/PM_{10}/PM_{2.5}$, $NO_X$, CO, and $SO_2$**

The owner or operator shall report the plantwide consecutive 12-month emissions of all air pollutants for each month in the reporting period.

**d. TAC**

Any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration.

## S4. Testing

[Regulation 2.03, section 6.1]

a. **HAP**

i. For an existing source subject to the HAP metals emission limits specified in Table 4 of Subpart VVVVVV, you must comply with the initial compliance and monitoring requirements in §63.11496(f)(3)(i) through (iii). You must keep records of monitoring results to demonstrate continuous compliance. [40 CFR 63.11496(f)(3)]

ii. You must prepare a monitoring plan containing the information in §63.11496(f)(3)(i)(A) through (E). The plan must be maintained on-site and be available on request. You must operate and maintain the control device according to a site-specific monitoring plan at all times. [40 CFR 63.11496(f)(3)(i)]

1) A description of the device; [40 CFR 63.11496(f)(3)(i)(A)]

2) Results of a performance test or engineering assessment verifying the performance of the device for reducing HAP metals or particulate matter (PM) to the levels required by this subpart; [40 CFR 63.11496(f)(3)(i)(B)]

3) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system (CMS).
[40 CFR 63.11496(f)(3)(i)(C)]

4) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limits; and [40 CFR 63.11496(f)(3)(i)(D)]

5) Operating parameter limits based on either monitoring data collected during the performance test or established in the engineering assessment. [40 CFR 63.11496(f)(3)(i)(E)]

iii. You must conduct a performance test or an engineering assessment for each CMPU subject to a HAP metals emissions limit in Table 4 to 40 CFR 63 Subpart VVVVVV and report the results in your Notification of Compliance Status (NOCS). Each performance test or engineering assessment must be conducted under representative operating conditions, and sampling for each performance test must be conducted at both the inlet and outlet of the control device. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. If you own or operate an existing affected source, you are not required to conduct a performance test if a prior performance test was conducted within the 5 years prior to the effective date using the same methods specified in §63.11496(f)(3)(iii)), and, either no process changes have been made since the test, or, if you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.
[40 CFR 63.11496(f)(3)(ii)]

iv. If you elect to conduct a performance test, it must be conducted according to requirements in §63.11410(j)(1). As an alternative to conducting a performance test using Method 5 or 5D to determine the concentration of PM, you may use Method 29 in 40 CFR 60, appendix A-8 to determine the concentration of HAP metals. You have demonstrated initial compliance if the overall reduction of either HAP metals or total PM is equal to or greater than 95 percent. [40 CFR 63.11496(f)(3)(iii)]

**Plantwide Comments**

1. Clariant Corp. – Louisville South Plant emits the following TACs subject to the STAR program (Regulation 5.21): Chromium hexavalent and chromium compounds (Cr(VI)), Chromium trivalent and chromium compounds (Cr(III)), Nickel and nickel compounds (Ni), Ammonia ($NH_3$), Cobalt and cobalt compounds (Co), Copper and copper compounds (Cu), Hydrochloric acid (hydrogen chloride) (HCl), Manganese and manganese compounds (Mn), Nitric acid ($HNO_3$), Sulfuric acid ($H_2SO_4$), Antimony and antimony compounds (Sb) and Radon and other radionuclides (U).

   At the time of permit issuance, the de minimis values are as follows.

| Pollutant | De Minimis | | Averaging Period | Category |
|---|---|---|---|---|
| | lb/hr | lb/avg. | | |
| Trivalent chromium and chromium compounds (Cr(III)) | 0.1 | 0.1 | 8-hour | 1 |
| Hexavalent chromium and chromium compounds (Cr(VI)), | 0.000045 | 0.04 | Annual | 1 |
| Nickel and nickel compounds (Ni) | 0.0021 | 1.82 | Annual | 1 |
| Ammonia | 54.00 | 48,000 | Annual | 2 |
| Cobalt and cobalt compounds (Co) | 0.00022 | 0.19 | Annual | 2 |
| Copper and copper compounds (Cu) | 0.04 | 0.047 | 8-hour | 2 |

| Pollutant | De Minimis | | Averaging Period | Category |
|---|---|---|---|---|
| | lb/hr | lb/avg. | | |
| Hydrochloric acid (HCl) | 10.80 | 9,600 | Annual | 2 |
| Manganese and manganese compounds (Mn) | 0.027 | 24.00 | Annual | 2 |
| Nitric acid ($HNO_3$) | 1.00 | 1.00 | 8-hour | 2 |
| Sulfuric acid ($H_2SO_4$) | 0.54 | 480.00 | Annual | 2 |
| Antimony and antimony compounds (Sb) | 0.76 | 672.00 | Annual | 4 |
| Radon and various other radionuclides (U) | 0.00022 | 0.19 | Annual | 4 |

| EU | EP | TAC | Risk | | HQ | |
|---|---|---|---|---|---|---|
| | | | Unadjusted ($EAG_C \leq 1.0$) | Industrial ($EAG_C \leq 10.0$) | Unadjusted ($EAG_{NC} \leq 1.0$) | Industrial ($EAG_{NC} \leq 3.0$) |
| S01 | MX-101-S01-001 | Mn | -- | -- | 0.053 | 0.190 |
| | MX-101-S01-001 | Ni | 0.263 | 0.935 | 0.071 | 0.254 |
| S02 | DD-101-S02-001 | Co | 0.437 | 1.555 | 0.019 | 0.068 |
| | H-101-S02-001 | Co | 0.437 | 1.555 | 0.019 | 0.068 |
| | MX-101-S02-001 | Co | 0.109 | 0.389 | 0.005 | 0.017 |
| | DD-101-S02-001 | Mn | -- | -- | 0.067 | 0.237 |
| | H-101-S02-001 | Mn | -- | -- | 0.067 | 0.237 |
| | DD-101-S02-001 | Ni | 0.328 | 1.169 | 0.089 | 0.317 |
| | H-101-S02-001 | Ni | 0.328 | 1.169 | 0.089 | 0.317 |
| | MX-101-S02-001 | Ni | 0.082 | 0.292 | 0.022 | 0.079 |
| S11 | HT-101-NOX-001 | Co | 0.238 | 0.99 | 0.010 | 0.043 |
| | HT-101-NOX-001 | Ni | 0.034 | 0.140 | 0.009 | 0.038 |
| | HT-101-NOX-001 | HCl | -- | -- | 0.040 | 0.165 |
| S12 | HT-101-NOX-002 | Co | 0.188 | 0.778 | 0.008 | 0.034 |
| | HT-101-NOX-002 | Ni | 0.027 | 0.111 | 0.007 | 0.030 |
| | HT-101-NOX-002 | HCl | -- | -- | 0.031 | 0.130 |
| S13 | DD-101-S13-001 | Co | 1.000 | 1.169 | 0.044 | 0.051 |
| S15 | H-101-G84-006/CV-101-G84-005/PD-101-G84-004 | Cr(III) | -- | -- | 0.111 | 0.354 |
| S16 | Fugitives | Ammonia | -- | -- | 0.083 | 0.543 |
| S17 | Fugitives | Ammonia | -- | -- | 0.054 | 0.27 |
| | T-101-S17-004 | Uranium | 0.241 | 1.40 | 0.004 | 0.023 |
| S20 | T-101-S20-001 | $HNO_3$ | -- | -- | 0.087 | 0.44 |
| S22 | DD-101-S22-001/H-101-S22-001 | Cobalt | 0.178 | 0.538 | 0.0078 | 0.024 |
| S24 | HT-101-NOX-003a | Cu | -- | -- | 0.031 | 0.130 |
| S24 | HT-101-NOX-003a | Mn | -- | -- | 0.028 | 0.118 |

| EU | EP | TAC | Risk | | HQ | |
|---|---|---|---|---|---|---|
| | | | Unadjusted ($EAG_C \leq 1.0$) | Industrial ($EAG_C \leq 10.0$) | Unadjusted ($EAG_{NC} \leq 1.0$) | Industrial ($EAG_{NC} \leq 3.0$) |
| | HT-101-NOX-003a | Ni | 0.218 | 0.904 | 0.059 | 0.245 |
| S25 | HT-101-NOX-004a | Ni | 0.131 | 0.542 | 0.035 | 0.147 |
| S29 | DD-101-S29-001/H-101-S29-001 | Cobalt | 0.178 | 0.551 | 0.0078 | 0.024 |
| S30 | T-102-S30-105 | Nickel | 0.239 | 0.9353 | 0.065 | 0.259 |
| S31 | T-102-S31-107 | Nickel | 0.13 | 0.29 | 0.034 | 0.078 |
| S38 | T-102-S38-002 | Ammonia | -- | -- | 0.014 | 0.016 |
| | T-102-S38-003 | Ammonia | -- | -- | 0.014 | 0.016 |
| | T-102-S38-003 | Nickel | 0.964 | 1.127 | 0.262 | 0.306 |
| | Fugitives | Ammonia | -- | -- | 0.272 | 1.780 |
| S39 | MX-102-S39-001 | Cobalt | 0.073 | 0.253 | 0.0032 | 0.011 |
| **Plantwide $R_C$ (existing)*:** | | | 5.69 | 16.52 | -- | -- |
| **Highest Non-Industrial Plantwide HQ for single TAC (Nickel)**:** | | | | | 0.71 | 1.99 |

* Plantwide $R_C$ for unadjusted new and modified ≤ 3.8 and unadjusted total ≤ 7.5; Plantwide $R_C$ for industrial new and modified ≤ 38.0 and industrial total ≤ 75.0

** Plantwide HQ for unadjusted total ≤ 1.0; plantwide HQ for industrial total ≤ 3.0

2. The PM control efficiencies for baghouses used by Clariant are based on the following stack tests. The control efficiency for PM is also used for PM TACs/HAPs: hexavalent chromium and chromium compounds (Cr(VI)), trivalent chromium and chromium compounds (Cr(III)), nickel and nickel compounds (Ni), ammonia ($NH_3$), cobalt and cobalt compounds (Co), copper and copper compounds (Cu), hydrochloric acid (hydrogen chloride) (HCl), manganese and manganese compounds (Mn), nitric acid ($HNO_3$), sulfuric acid ($H_2SO_4$), antimony and antimony compounds (Sb) and radon and other radionuclides (U).

| Bag Type | Control Efficiency | Tested Control Device | Test Date |
|---|---|---|---|
| MAC 80/20 | 99.8% | DC-203-W25-128 | May 4, 2021, reported July 1, 2021 |
| Mott tubes | 99.96% | DC-101-S16-117 | Oct. 8, 2020, reported Nov. 9, 2020 |
| Nomex | 99.8% | DC-201-W12-250 | May 5, 2021, reported July 1, 2021 |
| Polyester | 99.6% | DC-101-S15-112 | May 6, 2021, reported July 1, 2021 |
| Torit UlraWeb Cartridge | 99.7% | DC-201-W03-500 | July 22, 2020, reported Oct. 1, 2020 |

All other baghouses are assumed to have a 95% control efficiency.

HEPA filters are assumed to have a 99.97% control efficiency, based upon manufacturer's certification.

## Emission Unit 101-S02: Mixing System; mixing of wet metal oxides with various additives

### Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 40 CFR 63 Subpart VVVVVV | National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources | 63.11495, 63.11501(c)(1), 63.11501(d), and 63.11496(f)(3) |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 101-S02 Emission Points

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| DD-101-S02-001 | Drum Dumper | 1993 | 7.08, STAR, 40 CFR 63 VVVVVV | DC-101-NOX-119 | S-101-NOX-015 |
| H-101-S02-001 | Mixer Feed Hopper | 1993 | | | |
| MX-101-S02-001 | #2 Mixer | 1993 | | | |

### Control Devices

| Control ID | Description |
|---|---|
| DC-101-NOX-119 | Baghouse (99.6%), Mikro-Pulsaire, Model 36S8-30 [polyester type] |

## EU 101-S02 Specific Conditions

### S1. Standards

[Regulation 2.03, section 6.1]

#### a. Control Device Operation

For EP DD-101-S02-001, H-101-S02-001, and MX-101-S02-001 the owner or operator shall operate and maintain the control device DC-101-NOX-119 at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 2.05, 5.00 and 5.21, Regulation 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV]

#### b. HAP

See Plantwide Specific Conditions.

#### c. Opacity

See Plantwide Specific Conditions.

#### d. $PM/PM_{10}/PM_{2.5}$

i. For DD-101-S02-001, H-101-S02-001, MX-101-S02-001, the owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr each. [Regulation 7.08, section 3.1.2][1]

ii. See Plantwide Specific Conditions.

#### e. TAC

i. In EU 101-S02, the owner or operator shall not allow the processing rate of cobalt-containing products to exceed 100,000 pounds per consecutive 12-month period.

ii. The owner or operator shall not allow copper emissions to exceed de minimis levels from DD-101-S02-001, H-101-S02-001, and MX-101-S02-001. [Regulations 5.00 and 5.21]

iii. The owner or operator shall not allow manganese emissions to exceed de minimis levels from MX-101-S02-001. [Regulations 5.00 and 5.21]

[1] EP DD-101-S02-001, H-101-S02-001, and MX-101-S02-001 do not exceed the emission limit of 2.34 lb/hr after the first control device. EP T-101-S02-001 and T-101-S02-002 do not exceed the emission limit uncontrolled.

iv. The owner or operator shall not allow cobalt emissions to exceed 1.60 lb/12-consecutive months from DD-101-S02-001 and H-101-S02-001, each, and 0.40 lb/12-consecutive months from MX-101-S02-001.

v. The owner or operator shall not allow manganese emissions to exceed 30.48 lb/12-consecutive months from DD-101-S02-001 and H-101-S02-001, each.

vi. The owner or operator shall not allow nickel emissions to exceed 11.39 lb/12-consecutive months from DD-101-S02-001 and H-101-S02-001, each, and 2.86 lb/12-consecutive months from MX-101-S02-001. [Regulations 5.00 and 5.21][2]

vii. See Plantwide Specific Conditions.

**S2. Monitoring and Record Keeping**
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-101-NOX-119 signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop across DC-101-NOX-119 at least once during each operating day to ensure it is maintained between 0.05 and 6.0 " w.c.

[2] For manganese, MX-101-S02-001 does not exceed de minimis levels after the first control, and DD-101-S02-001 and H-101-S02-001 exceed de minimis levels after the first control. For copper, DD-101-S02-001, H-101-S02-001 and MX-101-S02-001 do not exceed de minimis after the first control. For cobalt and nickel, the equipment DD-101-S02-001, H-101-S02-001, and MX-101-S02-001 exceeds de minimis after the first control. For DD-101-S02-001, H-101-S02-001 and MX-101-S02-001 Clariant submitted SCREEN3 modeling for this piece of equipment December 16, 2020, and updated July 1, 2021, using an emission rate corresponding to the table below.

| Equipment | Cobalt Emission Rate (lb/hr) | Manganese Emission Rate (lb/hr) | Nickel Emission Rate (lb/hr) |
|---|---|---|---|
| DD-101-S02-001 | 1.83E-04 | 3.48 E-03 | 1.30 E-03 |
| H-101-S02-001 | 1.83E-04 | 3.48 E-03 | 1.30 E-03 |
| MX-101-S02-001 | 4.57 E-05 | N/A | 3.26 E-04 |

iii. For any period of operating outside the established performance indicator range for DC-101-NOX-119, the owner or operator shall maintain the following records:

(1) The date,

(2) The observed performance indicator value, and the

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence..

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no monitoring or recordkeeping requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. For any period of time when the process was operating and DC-101-NOX-119 was not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. The owner or operator shall monitor and record the consecutive 12-month processing rate of cobalt-containing products in EU 101-S02 for each month in the reporting period.

ii. The owner or operator shall monitor and record the consecutive 12-month emissions of cobalt and nickel from DD-101-S02-001, H-101-S02-001, and MX-101-S02-001 and manganese emissions from DD-101-S02-001 and H-101-S02-001 for each month in the reporting period.

iii. For any period of time when the process was operating and DC-101-NOX-119 was not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Plantwide Specific Conditions.

**S3. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no reporting requirements.

**d. PM/$PM_{10}$/$PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. Identification of all periods when a process was operating and DC-101-NOX-119 was not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. See Plantwide Specific Conditions.

ii. The owner or operator shall report the consecutive 12-month processing rate of cobalt-containing products in EU 101-S02 for each month in the reporting period.

iii. The owner or operator shall report the consecutive 12-month emissions of cobalt and nickel from DD-101-S02-001, H-101-S02-001, and MX-101-S02-001 and manganese emissions from DD-101-S02-001 and H-101-S02-001 for each month in the reporting period.

iv. Identification of all periods when a process was operating and DC-101-NOX-119 was not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

## 101-S02 Comments

1. The potential TAC emissions for the emission points are listed in the table below. [3]

| EU | EP | Co | Cu | Mn | Ni |
|---|---|---|---|---|---|
| 101-S02 | DD-101-S02-001 | Over de minimis | 1st | Over de minimis | Over de minimis |
| | H-101-S02-001 | Over de minimis | 1st | Over de minimis | Over de minimis |
| | MX-101-S02-001 | Over de minimis | 1st | 1st | Over de minimis |

[3] This emission point exceeds de minimis controlled, but Clariant submitted SCREEN3 modeling December 16, 2020, and updated July 1, 2021, showing environmental acceptability.

## Emission Unit 101-S03: Mixing and weighing of raw materials

### Applicable Regulations

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 101-S03 Emission Points

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| T-101-S03-005 | Overflow Tank | 2007 | STAR | NA | Fugitive |

## EU 101-S03 Specific Conditions

**S1. Standards**
[Regulation 2.03, section 6.1]

**a. TAC**

i. The owner or operator shall not allow ammonia or nitric acid emissions to exceed de minimis levels from T-101-S03-005.
[Regulations 5.00 and 5.21][4]

ii. See Plantwide Specific Conditions.

**S2. Monitoring and Record Keeping**
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. TAC**

See Plantwide Specific Conditions.

**S3. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. TAC**

See Plantwide Specific Conditions.

[4] The application submitted February 12, 2021, showed that the equipment meets de minimis levels uncontrolled.

## 101-S03 Comments

1. The potential uncontrolled TAC emissions of ammonia and nitric acid from EP T-101-S03-005 are less than *de minimis*.

## Emission Unit 101-S13: Catalyst System; precipitation of cobalt catalyst in lump form from solution

### Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 101-S13 Emission Points

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| DD-101-S13-001 | Drum Dumper | 1985 | 7.08 & STAR | ME-101-S13-001 SC-101-S34-100 | S-102-S34-001 |
| T-101-S13-006 | NH3 Recovery Tank | 1985 | STAR | SC-101-S34-100 | |

### Control Devices

| Control ID | Description |
|---|---|
| ME-101-S13-001 | Mist Eliminator (95% PM, 75% $NH_3$), SCI |
| SC-102-S34-100 | Wet Scrubber (95% PM), 75% $NH_3$ (single stage), SCI, Model DWG-E-102-AR2-31 |

## EU 101-S13 Specific Conditions

### S1. Standards
[Regulation 2.03, section 6.1]

#### a. Control Device Operation

For EP DD-101-S13-001 and T-101-S13-006, the owner or operator shall operate and maintain the control devices, ME-101-S13-001 and SC-101-S34-100, at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 2.05, 5.00 and 5.21, Regulation 7.08 section 3.1.2]

#### b. HAP

See Plantwide Specific Conditions.

#### c. Opacity

See Plantwide Specific Conditions.

#### d. $PM/PM_{10}/PM_{2.5}$

i. For DD-101-S13-001, the owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr. [Regulation 7.08, section 3.1.2][5]

ii. See Plantwide Specific Conditions.

#### e. TAC

i. In EU 101-S13, the owner or operator shall not allow the processing rate of cobalt-containing products to exceed 385,780 pounds per consecutive 12-month period.

ii. The owner or operator shall not allow cobalt emissions to exceed 19.27 lb/12-consecutive months from DD-101-S13-001.
[Regulations 5.00 and 5.21][6]

iii. See Plantwide Specific Conditions.

### S2. Monitoring and Record Keeping
[Regulation 2.03, section 6.1]

[5] The equipment does not exceed the emission limit of 2.34 lb/hr after the first control device.
[6] The company submitted SCREEN3 modeling for this piece of equipment December 16, 2020, and updated July 1, 2021, showing environmental acceptability.

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of ME-101-S13-001 and SC-102-S34-100 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. For SC-102-S34-100, the owner or operator shall monitor and maintain records of the inlet water flow rate at least once during each operating day to ensure it is at least 4 gpm.

iii. For any period of operating outside the established performance indicator range for SC-102-S34-100, the owner or operator shall maintain the following records:

(1) The date,

(2) The observed performance indicator value, and the

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no monitoring or recordkeeping requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. For any period of time when the process was operating and the control devices were not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. The owner or operator shall monitor and record the consecutive 12-month processing rate of cobalt-containing products in EU 101-S13 for each month in the reporting period.

ii. The owner or operator shall monitor and record the consecutive 12-month cobalt emissions from DD-101-S13-001 for each month in the reporting period.

iii. For any period of time when the process was operating and the control devices were not operating, the owner or operator shall maintain the following records:

(5) The duration;

(6) The process throughput during the control device downtime;

(7) The emissions of each TAC (lb/hr and lb/avg. period); and

(8) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

iv. See Plantwide Specific Conditions.

**S3. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no reporting requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. Identification of all periods when a process was operating and the control devices were not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. See Plantwide Specific Conditions.

i. The owner or operator shall report the consecutive 12-month processing rate of cobalt-containing products in EU 101-S13 for each month in the reporting period.

ii. The owner or operator shall report the consecutive 12-month cobalt emissions from DD-101-S13-001 for each month in the reporting period.

ii. Identification of all periods when a process was operating and the control devices were not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**101-S13 Comments**

1. The potential cobalt emissions from EP DD-101-S13-001 are over de minimis. [7]

[7] This emission point exceeds de minimis controlled, but Clariant submitted SCREEN3 modeling December 16, 2020, and updated July 1, 2021, showing environmental acceptability.

## Emission Unit 101-S14: Mixing and weighing of raw materials

### Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 40 CFR 63 Subpart VVVVVV | National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources | 63.11495, 63.11501(c)(1), 63.11501(d), and 63.11496(f)(3) |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.02 | Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference | 1, 3.95, and 4 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

## Equipment: 101-S14 Emission Points[8]

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| DD-101-S14-001/H-101-S14-001 | Drum Dumper / Feed Hopper | 1998 | 7.08, STAR, 40 CFR 63 VVVVVV | DC-101-S03-123 FIL-101-S03-001 | S-101-S03-123-001 |
| PD-101-S14-001 | Product Drum | 1998 | | | |

## Control Devices

| Control ID | Description |
|---|---|
| DC-101-S03-123 | Baghouse (99.6%), Flex-Kleen, Model 58 BVBS-36 [polyester type] |
| FIL-101-S03-001 | HEPA Filter (99.97%), Torit Donaldson, Model Ultraweb |

[8] Dip basket filling operations from EU 101-S19 are now being conducted in EU 101-S14. Therefore, trivalent chromium, hexavalent chromium, and manganese emissions have been added to this process.

## EU 101-S14 Specific Conditions

### S1. Standards
[Regulation 2.03, section 6.1]

#### a. Control Device Operation

For EP DD-101-S14-001/H-101-S14-001 and PD-101-S14-001, the owner or operator shall operate and maintain the control devices, DC-101-S03-123 and FIL-101-S03-001, at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 2.05, 5.00 and 5.21, Regulation 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV]

#### b. HAP

See Plantwide Specific Conditions.

#### c. Opacity

See Plantwide Conditions.

#### d. $PM/PM_{10}/PM_{2.5}$

i. For DD-101-S14-001/H-101-S14-001, PD-101-S14-001, the owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr each. [Regulation 7.08, section 3.1.2][9]

ii. See Plantwide Specific Conditions.

#### e. TAC

i. The owner or operator shall not allow chromium III, chromium VI, copper, manganese, or nickel to exceed de minimis levels from DD-101-S14-001/H-101-S14-001 or PD-101-S14-001. [Regulations 5.00 and 5.21][10]

ii. See Plantwide Specific Conditions.

### S2. Monitoring and Record Keeping
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

[9] The two pieces of equipment do not exceed the emission limit of 2.34 lb/hr after the first control device.

[10] The application submitted February 12, 2021, showed that the equipment meets de minimis levels after the first control device for chromium III and manganese. The equipment meets de minimis levels after the second control device for chromium VI, copper, and nickel.

**a. Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-101-S03-123 and FIL-101-S03-001 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop/vacuum at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

| Control ID | Pressure Drop (" w.c.) |
|---|---|
| DC-101-S03-123 | 0.5 – 6.5 |
| FIL-101-S03-001 | 0.05 – 6.0 |

iii. For any period of operating outside the established performance indicator range for DC-101-S03-123 and FIL-101-S03-001 the owner or operator shall maintain the following records:

(1) The date,

(2) The observed performance indicator value,

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no monitoring or recordkeeping requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. For any period of time when the process was operating and DC-101-S03-123 was not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. See Plantwide Specific Conditions.

i. For any period of time when the process was operating and DC-101-S03-123 and FIL-101-S03-001 were not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**S3. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no reporting requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

See Plantwide Specific Conditions.

i. Identification of all periods when a process was operating and DC-101-S03-123 was not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. See Plantwide Specific Conditions.

ii. Identification of all periods when a process was operating and DC-101-S03-123 and FIL-101-S03-001 were not operating, including the information below.

(5) The duration;

(6) The process throughput during the control device downtime;

(7) The emissions of each TAC (lb/hr and lb/avg. period); and

(8) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

## 101-S14 Comments

1. The potential TAC emissions for the emission points in the table below are less than *de minimis*, with the listed levels of control.

| EU | EP | Cr(III) | Cr(VI) | Cu | Mn | Ni |
|---|---|---|---|---|---|---|
| 201-S14 | DD-101-S14-001/ H-101-S14-001 | 1st | 2nd | 2nd | 1st | 2nd |
| | PD-101-S14-001 | 1st | 2nd | 2nd | 1st | 2nd |

## Emission Unit 101-S17: Reaction, precipitation, washing, drying, calcining and packaging

### Applicable Regulations

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 101-S17 Emission Points

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| T-101-S17-015 | Hold tank | 1984 | STAR | NA | S-101-S17-008 |
| PD-101-S17-001 | Rework Drum | 1984 | 7.08, STAR | FR-101-S17-015 | Fugitive |
| PD-101-S17-002 | Product Dust Drum | 1984 | 7.08, STAR | DC-101-S17-004 | Fugitive |

### Control Devices

| Control ID | Description |
|---|---|
| FR-101-S17-015 | HEPA filter (99.97%), Vacuum system, model 551DC |
| DC-101-S17-004 | HEPA filter (99.97%), Vacumax, model MDL55DAF, 2 drums |

## EU 101-S17 Specific Conditions

### S1. Standards

[Regulation 2.03, section 6.1]

#### a. Control Device Operation

For EP PD-101-S17-001 and PD-101-S17-002, the owner or operator shall operate and maintain the control devices FR-101-S17-015 and DC-101-S17-004, respectively, at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 2.05, 5.00 and 5.21, Regulation 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV]

#### b. HAP

See Plantwide Specific Conditions.

#### c. Opacity

See Plantwide Specific Conditions.

#### d. $PM/PM_{10}/PM_{2.5}$

i. For PD-101-S17-001 and PD-101-S17-002, the owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr each.
[Regulation 7.08, section 3.1.2]

ii. See Plantwide Specific Conditions.

#### e. TAC

i. The owner or operator shall not allow ammonia emissions to exceed de minimis levels from T-101-S17-015. [Regulations 5.00 and 5.21][11]

ii. The owner or operator shall not allow emissions of antimony and uranium to exceed de minimis levels from PD-101-S17-001 and PD-101-S17-002. [Regulations 5.00 and 5.21]

iii. See Plantwide Specific Conditions.

[11] The application submitted February 12, 2021, showed that the equipment meets de minimis levels uncontrolled.

**S2. Monitoring and Record Keeping**
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of FR-101-S17-015 and DC-101-S17-004 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop/vacuum at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

| Control ID | Pressure Drop (" w.c.) |
|---|---|
| FR-101-S17-015 | 0.01 2.0 |
| DC-101-S17-004 | 0.2 – 2.0 |

iii. For any period of operating outside the established performance indicator range for FR-101-S17-015 and DC-101-S17-004, the owner or operator shall maintain the following records:

(1) The date,

(2) The observed performance indicator value,

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP, PM/$PM_{10}$/$PM_{2.5}$, and TAC**

See Plantwide Specific Conditions.

**c. Opacity**

There are no monitoring or recordkeeping requirements.

**S3. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were

no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no reporting requirements.

**d. $PM/PM_{10}/PM_{2.5}$/TAC**

See Plantwide Specific Conditions.

**101-S17 Comments**

1. The potential TAC emissions for the emission points in the table below are less than *de minimis*, with the listed levels of control.

| EU | EP | Ammonia | Antimony | Uranium |
|---|---|---|---|---|
| 201-S17 | T-101-S17-015 | uncontrolled | -- | -- |
| | PD-101-S17-001 | -- | uncontrolled | 1st |
| | PD-101-S17-002 | -- | 1st | 2nd |

## Emission Unit 101-S22: North screening system

### Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 40 CFR 63 Subpart VVVVVV | National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources | 63.11495, 63.11501(c)(1), 63.11501(d), and 63.11496(f)(3) |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 101-S22 Emission Points[12]

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| DD-101-S22-001/H-101-S22-001 | Drum Dumper/Hopper | 1994 | 7.08, STAR, 40 CFR 63 Subpart VVVVVV | DC-101-S22-011 FIL-101-S22-011 | S-101-S22-001 |
| FD-101-S22-001 | Feeder | | | | |
| H-101-S22-002 | Supersack Hopper | | | | |
| PD-101-S22-001 | Product Drumout | | | | |
| PD-101-S22-002 | Supersack Drumout | | | | |
| VS-101-S22-001 | Screener | | | | |

[12] These emission points exist already. Per the application submitted February 12, 2021, the maximum cobalt concentration has increased.

## Control Devices

| Control ID | Description |
|---|---|
| DC-101-S22-011 | Baghouse (99.6%), Flex Kleen, Model 58-BVBG-36 [polyester type] |
| FIL-101-S22-011 | HEPA filter (99.97%), Donaldson Torit Ultra Lok 1x2 |

## EU 101-S22 Specific Conditions

### S1. Standards

[Regulation 2.03, section 6.1]

#### a. Control Device Operation

For EP DD-101-S22-001/H-101-S22-001, FD-101-S22-001, H-101-S22-002, PD-101-S22-001, PD-101-S22-002, and VS-101-S22-001 the owner or operator shall operate and maintain the control devices, DC-101-S22-011 and FIL-101-S22-011, at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 2.05, 5.00 and 5.21, Regulation 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV]

#### b. HAP

See Plantwide Specific Conditions.

#### c. Opacity

See Plantwide Specific Conditions.

#### d. $PM/PM_{10}/PM_{2.5}$

i. For DD-101-S22-001/H-101-S22-001, FD-101-S22-001, H-101-S22-002, PD-101-S22-001, PD-101-S22-002, and VS-101-S22-001, the owner or operator shall not allow or cause PM emissions to exceed 6.72 lb/hr each. [Regulation 7.08, section 3.1.2] [13]

ii. See Plantwide Specific Conditions.

#### e. TAC

i. The owner or operator shall not allow cobalt, chromium III, chromium VI, copper, manganese, or nickel emissions to exceed de minimis levels from FD-101-S22-001, H-101-S22-002, PD-101-S22-001, PD-101-S22-002, and VS-101-S22-001. [Regulations 5.00 and 5.21][14]

[13] The equipment does not exceed the PM limit of 6.72 lb/hr after the first control.

[14] For chromium VI, copper, manganese, and nickel emissions, the equipment does not exceed de minimis levels after the second control. For chromium III emissions, the equipment does not exceed de minimis levels after the second control, but FD-101-S22-001 does not exceed de minimis after the first control. For cobalt, the equipment does not exceed de minimis levels after the second control, except DD-101-S22-001/H-101-S22-001. For DD-101-S22-001/H-101-S22-001, Clariant submitted SCREEN3 modeling using an emission rate of 3.7E-05 lb/hr.

ii. The owner or operator shall not allow chromium III, chromium VI, copper, manganese, or nickel emissions to exceed de minimis levels from DD-101-S22-001/H-101-S22-001. [Regulations 5.00 and 5.21]

iii. The owner or operator shall not allow cobalt emissions from DD-101-S22-001/H-101-S22-001 to exceed 0.324 lb/12-consecutive months.

iv. See Plantwide Specific Conditions.

**S2. Monitoring and Record Keeping**
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-101-S22-011 and FIL-101-S22-011 signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the inlet water flowrate/pressure at least once during each operating day to ensure it is maintained within the operating ranges as shown in the table below.

| Control ID | Pressure Drop (" w.c.) |
|---|---|
| DC-101-S22-011 | 1.0 – 6.0 |
| FIL-101-S22-011 | 0.2 – 5.0 |

iii. For any period of operating outside the established performance indicator range for DC-101-S22-011 and FIL-101-S22-011, the owner or operator shall maintain the following records:

(1) The date,

(2) The observed performance indicator value,

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no monitoring or recordkeeping requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. For any period of time when the process was operating and DC-101-S22-011 was not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. The owner or operator shall monitor and record the consecutive 12-month cobalt emissions from DD-101-S22-001/H-101-S22-001 for each month in the reporting period.

ii. See Plantwide Specific Conditions.

iii. For any period of time when the process was operating and DC-101-S22-011 and FIL-101-S22-011 were not operating, the owner or operator shall maintain the following records:

(9) The duration;

(10) The process throughput during the control device downtime;

(11) The emissions of each TAC (lb/hr and lb/avg. period); and

(12) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

## S3. Reporting

[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".

- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no reporting requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. Identification of all periods when a process was operating and DC-101-S22-011 was not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. See Plantwide Specific Conditions.

ii. The owner or operator shall report the consecutive 12-month cobalt emissions from DD-101-S22-001/H-101-S22-001 for each month in the reporting period.

iii. Identification of all periods when a process was operating and DC-101-S03-123 and FIL-101-S03-001 were not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**101-S22 Comments**

1. The potential TAC emissions for the emission points are listed in the table below.

| EU | EP | Co | Cr(III) | Cr(VI) | Cu | Mn | Ni |
|---|---|---|---|---|---|---|---|
| 101-S22 | DD-101-S22-001/H-101-S22-001 | Over de minimis[15] | 2nd | 2nd | 2nd | 2nd | 2nd |
| | FD-101-S22-001 | 2nd | 2nd | 1st | 2nd | 2nd | 2nd |
| | H-101-S22-002 | 2nd | 2nd | 2nd | 2nd | 2nd | 2nd |
| | PD-101-S22-001 | | 2nd | 2nd | 2nd | 2nd | 2nd |
| | PD-101-S22-002 | | 2nd | 2nd | 2nd | 2nd | 2nd |
| | VS-101-S22-001 | | 2nd | 2nd | 2nd | 2nd | 2nd |

[15] This emission point exceeds de minimis controlled, but Clariant submitted SCREEN3 modeling December 16, 2020, and updated July 1, 2021, showing environmental acceptability.

## Emission Unit 101-S29: South screening system

### Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 40 CFR 63 Subpart VVVVVV | National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources | 63.11495, 63.11501(c)(1), 63.11501(d), and 63.11496(f)(3) |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 101-S29 Emission Points[16]

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| DD-101-S29-001/H-101-S29-001 | Drum Dumper / Hopper | 1994 | 7.08, STAR, 40 CFR 63 Subpart VVVVVV | DC-101-S29-010 FIL-101-S29-010 | S-101-S29-001 |
| FD-101-S29-001 | Feeder | | | | |
| PD-101-S29-001 | Product Drumout | | | | |
| VS-101-S29-001 | Screener | | | | |

[16] These emission points exist already. Per the application submitted February 12, 2021, the maximum cobalt concentration has increased.

## Control Devices

| Control ID | Description |
|---|---|
| DC-101-S29-010 | Baghouse (99.6%), Mikro Pulsaire, Model 4958-20 [polyester type] |
| FIL-101-S29-010 | HEPA filter (99.97%), Donaldson Torit Ultra Lok 1x2 |

## EU 101-S29 Specific Conditions

### S1. Standards

[Regulation 2.03, section 6.1]

#### a. Control Device Operation

For EP DD-101-S29-001/H-101-S29-001, FD-101-S29-001, PD-101-S29-001, and VS-101-S29-001 the owner or operator shall operate and maintain the control devices, DC-101-S29-010 and FIL-101-S29-010, at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 2.05, 5.00 and 5.21, Regulation 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV]

#### b. HAP

See Plantwide Specific Conditions.

#### c. Opacity

See Plantwide Specific Conditions.

#### d. $PM/PM_{10}/PM_{2.5}$

i. For PD DD-101-S29-001/H-101-S29-001, FD-101-S29-001, PD-101-S29-001, and VS-101-S29-001, the owner or operator shall not allow or cause PM emissions to exceed 6.72 lb/hr each. [Regulation 7.08, section 3.1.2][17]

ii. See Plantwide Specific Conditions.

#### e. TAC

i. The owner or operator shall not allow cobalt, chromium III, chromium VI, copper, manganese, or nickel emissions to exceed de minimis levels from FD-101-S29-001, PD-101-S29-001, and VS-101-S29-001. [Regulations 5.00 and 5.21][18]

ii. The owner or operator shall not allow chromium III, chromium VI, copper, manganese, or nickel emissions to exceed de minimis levels from DD-101-S29-001/H-101-S29-001. [Regulations 5.00 and 5.21]

[17] The equipment does not exceed the PM limit of 6.72 lb/hr after the first control.

[18] For chromium III, chromium VI, copper, manganese, and nickel emissions, the equipment does not exceed de minimis levels after the second control. For cobalt emissions, the equipment does not exceed de minimis levels after the second control, except DD-101-S29-001/H-101-S29-001. For DD-101-S29-001/H-101-S29-001, Clariant submitted SCREEN3 modeling using an emission rate of 3.70E-05 lb/hr.

iii. The owner or operator shall not allow cobalt emissions from DD-101-S29-001/H-101-S29-001 to exceed 0.324 lb/12-consecutive months.

iv. See Plantwide Specific Conditions.

**S1. Monitoring and Record Keeping**
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-101-S29-010 and FIL-101-S29-010 signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the inlet water flowrate/pressure at least once during each operating day to ensure it is maintained within the operating ranges as shown in the table below.

| Control ID | Pressure Drop (" w.c.) |
|---|---|
| DC-101-S29-010 | 0.5 – 4.0 |
| FIL-101-S29-010 | 0.2 – 5.0 |

iii. For any period of operating outside the established performance indicator range for DC-101-S29-010 and FIL-101-S29-010, the owner or operator shall maintain the following records:

(1) The date,

(2) The observed performance indicator value,

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions

**c. Opacity**

There are no monitoring or recordkeeping requirements.

**d. PM/$PM_{10}$/$PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. For any period of time when the process was operating and DC-101-S29-010 was not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. The owner or operator shall monitor and record the consecutive 12-month cobalt emissions from DD-101-S29-001/H-101-S29-001 for each month in the reporting period.

ii. See Plantwide Specific Conditions.

iii. For any period of time when the process was operating and DC-101-S29-010 and FIL-101-S29-010 were not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**S2. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".

- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no reporting requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. Identification of all periods when a process was operating and DC-101-S29-010 was not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. See Plantwide Specific Conditions.

ii. The owner or operator shall report the consecutive 12-month cobalt emissions from DD-101-S29-001/H-101-S29-001 for each month in the reporting period.

iii. Identification of all periods when a process was operating and DC-101-S29-010 and FIL-101-S29-010 were not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**101-S29 Comments**

1. The potential TAC emissions for the emission points are listed in the table below.

| EU | EP | Co | Cr(III) | Cr(VI) | Cu | Mn | Ni |
|---|---|---|---|---|---|---|---|
| 101-S29 | DD-101-S29-001/H-101-S29-001 | Over de minimis[19] | 2nd | 2nd | 2nd | 2nd | 2nd |
| | FD-101-S29-001 | 2nd | 1st | 2nd | 2nd | 2nd | 2nd |
| | PD-101-S29-001 | 2nd | 2nd | 2nd | 2nd | 2nd | 2nd |
| | VS-101-S29-001 | | 2nd | 2nd | 2nd | 2nd | 2nd |

[19] This emission point exceeds de minimis controlled, but Clariant submitted SCREEN3 modeling December 16, 2020, and updated July 1, 2021, showing environmental acceptability.

## Emission Unit 102-S34: Ammonia Recovery System; removal of concentrated ammonia from vapor for storage and recycle in plant processes

### Applicable Regulations

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 102-S34 Emission Points

| Emission Point | Description | Install Date | Applicable Regulations | Control Device | Stack ID |
|---|---|---|---|---|---|
| V-102-S34-100 | Ammonia Recovery Stripping Column | Pre-1980 (replaced 10/06) | STAR | HE-102-S34-101/102/103 SC-102-S34-100 | S-102-S34-001 |

### Control Devices

| Control ID | Description |
|---|---|
| HE-102-S34-101 | Condenser (75% $NH_3$), Happy, Model 1F1016-1108-MVH |
| HE-102-S34-102 | Condenser (75% $NH_3$), Happy, Model 1F1016-1108-MVH |
| HE-102-S34-103 | Condenser (75% $NH_3$), Happy, Model 1F1016-1108-MVH |
| SC-102-S34-100 | Wet scrubber (75% $NH_3$ (single stage)), SCI, Model DWG-E-102-AR2-31 |

## EU 102-S34 Specific Conditions

**S1. Standards**
[Regulation 2.03, section 6.1]

**a. Control Device Operation**

For EP V-102-S34-100, the owner or operator shall operate and maintain the control devices, HE-102-S34-101/102/103 and SC-102-S34-100, at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 5.00 and 5.21]

**b. TAC**

i. The owner or operator shall not allow ammonia emissions to exceed de minimis limits for V-102-S34-100[20]. [Regulation 5.00 and 5.21]

ii. See Plantwide Specific Conditions.

**S2. Monitoring and Record Keeping**
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the inlet water flow rate of SC-102-S34-100 at least once during each operating day to ensure it is at least 4 gpm.

iii. For any period of operating outside the established performance indicator range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

**b. TAC**

See Plantwide Specific Conditions.

[20] The equipment does not exceed de minimis levels uncontrolled.

**S3. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. TAC**

See Plantwide Specific Conditions.

**102-S34 Comments**

1. The potential uncontrolled ammonia emissions from EP V-102-S34-100 are less than de minimis.

## Emission Unit 102-S35: Stabilization System; air stabilization of reduced metal catalyst products

### Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 40 CFR 63 Subpart VVVVVV | National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources | 63.11495, 63.11501(c)(1), 63.11501(d), and 63.11496(f)(3) |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 102-S35 Emission Points

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| PD-102-S35-001 | Product Drumout | 1982 | 7.08, STAR, 40 CFR 63 Subpart VVVVVV | DC-102-S35-212, FIL-102-S35-008 | S-102-S35-001 |
| PT-102-S35-001 | Product Tote | | | | |
| SSD-102-S35-001 | Super Sack Drumout | | | | |
| T-102-S35-108 | Bagger Discharge Tank | | | FIL-102-S35-004 | S-102-S35-002 |
| T-102-S35-109 | Drummer Discharge Tank | | | FIL-102-S35-006 | S-102-S35-004 |

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| V-102-S35-001 | Stabilizer | | | Internal Mott FIL-102-S35-009 | S-102-S35-005 |

**Control Devices**

| Control ID | Description |
|---|---|
| Internal Mott | Mott tube filter (99.96%), Mott Metallurgical Corp. Porous Filter 2244-A16-36-A00-KB |
| DC-102-S35-212 | Baghouse (99.8%), Flex Kleen, Model 58-BVBC-25-III [Nomex type] |
| FIL-102-S35-004 | Mott tube filter (99.96%), Mott Metallurgical Corp. Porous Filter 6400S-1 ½-2-1-17.75-20-AB |
| FIL-102-S35-006 | |
| FIL-102-S35-008 | HEPA filter (99.97%), Donaldson Torit Ultra Lok 1x1 |
| FIL-102-S35-009 (was FIL-102-S35-003) | Mott tube filter (99.96%), Mott Metallurgical Corp. Porous Filter 2248S-B32-18-A00-5-AB |

## EU 102-S35 Specific Conditions

### S1. Standards

[Regulation 2.03, section 6.1]

#### a. Control Device Operation

For PD-102-S35-001, PT-102-S35-001, SSD-102-S35-001, T-102-S35-108, T-102-S35-109 and V-102-S35-001, the owner or operator shall operate and maintain the control devices, Internal Mott, DC-102-S35-212, FIL-102-S35-004, FIL-102-S35-006, FIL-102-S35-008, and FIL-102-S35-009, at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 5.00 and 5.21, and 40 CFR 63 Subpart VVVVVV]

#### b. HAP

See Plantwide Specific Conditions.

#### c. Opacity

See Plantwide Specific Conditions.

#### d. $PM/PM_{10}/PM_{2.5}$

i. For PD-102-S35-001, PT-102-S35-001, SSD-102-S35-001, T-102-S35-108, T-102-S35-109, V-102-S35-001, the owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr each.
[Regulation 7.08, section 3.1.2] [21]

ii. See Plantwide Specific Conditions.

#### e. TAC

i. In EU 101-S35, the owner or operator shall not allow the processing rate to exceed 840,960 pounds per consecutive 12- month period.

ii. From PD-102-S35-001, PT-102-S35-001, SSD-102-S35-001, T-102-S35-108, T-102-S35-109, and V-102-S35-001 owner or operator shall not allow nickel emissions to exceed de minimis levels. [Regulations 5.00 and 5.21][22]

[21] PD-102-S35-001, PT-102-S35-001, and SSD-102-S35-001 do not exceed the emission limit of 2.34 lb/hr uncontrolled. T-102-S35-108, T-102-S35-109, and V-102-S35-001 do not exceed the emission limit after the first control.

[22] The application submitted February 12, 2021, showed that the equipment does not meet de minimis levels after the first control. With the processing rate limit, the equipment will meet de minimis levels, controlled.

iii. See Plantwide Specific Conditions.

**S2. Monitoring and Record Keeping**
[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure the pressure drop is maintained within the operating range as shown in the table below.

| Control ID | Pressure Drop (" w.c.) |
|---|---|
| DC-102-S35-212 | 0 – 10.0 |
| FIL-102-S35-009, FIL-102-S35-004, FIL-102-S35-006, and FIL-102-S35-008 | 0.2 – 5.0 |

iii. For any period of operating outside the established pressure drop range for a control device, the owner or operator shall maintain the following records:

(1) The date,

(2) The observed pressure drop,

(3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. See Plantwide Specific Conditions.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no monitoring or recordkeeping requirements.

**d. PM/$PM_{10}$/$PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. For any period of time when the process was operating and Internal Mott, DC-102-S35-212, FIL-102-S35-004, FIL-102-S35-006, FIL-102-S35-008, or FIL-102-S35-009 were not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence..

**e. TAC**

i. See Plantwide Specific Conditions.

ii. The owner or operator shall monitor and record the consecutive 12-month processing rate in EU 102-S35 for each month in the reporting period.

iii. For any period of time when the control devices were not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**S3. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no reporting requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

i. See Plantwide Specific Conditions.

ii. Identification of all periods when a process was operating and Internal Mott, DC-102-S35-212, FIL-102-S35-004, FIL-102-S35-006, FIL-102-S35-008, or FIL-102-S35-009 were not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of PM (lb/hr) and PM/PM10 (tons); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**e. TAC**

i. See Plantwide Specific Conditions.

ii. The owner or operator shall report the consecutive 12-month processing rate in EU 102-S35 for each month in the reporting period.

iii. Identification of all periods when a process was operating and control devices were not operating, including the information below.

(13) The duration;

(14) The process throughput during the control device downtime;

(15) The emissions of each TAC (lb/hr and lb/avg. period); and

(16) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**102-S35 Comments**

1. The potential TAC emissions for the emission points in the table below are less than *de minimis*, with the listed levels of control.

| EU | EP | Ni |
|---|---|---|
| 102-S35 | PD-102-S35-001 | 1st |
| | PT-102-S35-001 | 1st |
| | SSD-102-S35-001 | 1st |
| | T-102-S35-108 | 1st |
| | T-102-S35-109 | 1st |
| | V-102-S35-001 | 1st |

## Emission Unit 102-S38: Dissolving Metallic Nickel

### Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 40 CFR 63 Subpart VVVVVV | National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources | 63.11495, 63.11501(c)(1), 63.11501(d), and 63.11496(f)(3) |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

### Equipment: 101-S38 Emission Points

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Stack ID |
|---|---|---|---|---|---|
| T-102-S38-003 | Central Tank, 5891 gal | 1994 | 7.08, STAR, 40 CFR 63 VVVVVV | SC-101-S34-100 | S-102-S34-001 |

### Control Devices

| Control ID | Description |
|---|---|
| SC-102-S34-100 | Wet Scrubber (95% PM, 75% $NH_3$ (single stage)), SCI, Model DWG-E-102-AR2-31 |

## EU 101-S38 Specific Conditions

### S1. Standards

[Regulation 2.03, section 6.1]

#### a. Control Device Operation

For EP T-102-S38-003, the owner or operator shall operate and maintain the control device, SC-101-S34-100, at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions. [Regulations 5.00 and 5.21, and 40 CFR 63 Subpart VVVVVV]

#### b. HAP

See Plantwide Specific Conditions.

#### c. Opacity

See Plantwide Specific Conditions.

#### d. $PM/PM_{10}/PM_{2.5}$

i. For T-102-S38-003, the owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr. [Regulation 7.08, section 3.1.2] [23]

ii. See Plantwide Specific Conditions.

#### e. TAC

i. For EP T-102-S38-003, the owner or operator shall not allow the processing rate to exceed 1,795,800 pounds per consecutive 12-month period.

ii. The owner or operator shall not allow nickel emissions to exceed 176.39 lb/12-consecutive months from EP T-102-S38-003. [Regulations 5.00 and 5.21][24]

iii. See Plantwide Specific Conditions.

[23] The uncontrolled emissions from this EP does not exceed the emission limit of 2.34 lb/hr.

[24] The application submitted February 12, 2021, showed that the equipment does not meet de minimis levels after the control device, but Clariant submitted SCREEN3 modeling December 16, 2020, and updated July 1, 2021, showing environmental acceptability.

## S2. Monitoring and Record Keeping

[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

### a. Control Device Operation

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of SC-102-S34-100 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. For SC-102-S34-100, the owner or operator shall monitor and maintain records of the inlet water flow rate at least once during each operating day to ensure it is at least 4 gpm.

iii. For any period of operating outside the established performance indicator range for SC-102-S34-100, the owner or operator shall maintain the following records:

(1) The date,

(2) The observed performance indicator value, and the

(3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

### b. HAP

See Plantwide Specific Conditions.

### c. Opacity

There are no monitoring or recordkeeping requirements.

### d. $PM/PM_{10}/PM_{2.5}$

See Plantwide Specific Conditions.

### e. TAC

i. See Plantwide Specific Conditions.

ii. For EP T-102-S38-003, the owner or operator shall monitor and record the consecutive 12-month processing rate for each month in the reporting period.

iii. For EP T-102-S38-003, the owner or operator shall monitor and record the consecutive 12-month nickel emissions for each month in the reporting period.

iv. For any period of time when the process was operating and SC-102-S34-100 was not operating, the owner or operator shall maintain the following records:

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**S3. Reporting**
[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

- "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete".
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1 through June 30 | August 29 |
| July 1 through December 31 | March 1 of the following year |

**a. Control Device Operation**

i. Identification of all periods of operating outside the established performance indicator range for a control device, including the information below, or a negative declaration if there were no excursions during the reporting period.

(1) The date,

(2) The observed performance indicator value, and

(3) Corrective action taken to minimize the extent of the excursion, and

(4) Measures implemented to prevent reoccurrence.

**b. HAP**

See Plantwide Specific Conditions.

**c. Opacity**

There are no reporting requirements.

**d. $PM/PM_{10}/PM_{2.5}$**

See Plantwide Specific Conditions.

**e. TAC**

i. See Plantwide Specific Conditions.

ii. For EP T-102-S38-003, the owner or operator shall report the consecutive 12-month processing rate for each month in the reporting period.

iii. For EP T-102-S38-003, the owner or operator shall report the consecutive 12-month nickel emissions for each month in the reporting period.

iv. Identification of all periods when a process was operating and SC-102-S34-100 was not operating, including the information below.

(1) The duration;

(2) The process throughput during the control device downtime;

(3) The emissions of each TAC (lb/hr and lb/avg. period); and

(4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

**101-S38 Comments**

1. The potential nickel emissions from EP T-102-S38-003 are over *de minimis*.[25]

[25] This emission point exceeds de minimis controlled, but Clariant submitted SCREEN3 modeling December 16, 2020, and updated July 1, 2021, showing environmental acceptability. the company provided SCREEN3 modeling on 12/16/2020 which meets EA goals.